



STATE OF
WASHINGTON

Dixy Lee Ray
Governor

DEPARTMENT OF ECOLOGY

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AGICF
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4-12-78

MEMORANDUM

TO: Lloyd Taylor
FROM: Mark Premo *MP*
SUBJECT: ENFORCEMENT ACTION
ACE GALVANIZING COMPANY, SEATTLE
SOUTH PARK PLANT
DATE: April 12, 1978

INTRODUCTION

Beginning at the first of this year, eight spot checks of Ace Galvanizing located at 429 South 96th Street, Seattle, Washington 98108 have been conducted by this department. These spot checks were conducted in order to determine compliance or noncompliance with Order Docket #DE 76-286 and an amended Docket #DE 76-286. Results of these spot checks indicated that Ace Galvanizing was in violation with the subject enforcement action and also the expired NPDES Permit #WA-002225-0 six of the eight times inspected. This report represents the results of actions taken by Ace Galvanizing to comply with Order Docket #DE 76-286 to resolve the problem and presents the facts determined by the inspections conducted by this department over the last seven years and presents a recommendation for enforcement action based upon these findings.

RECOMMENDATION

Historically, Ace Galvanizing has had a very poor track record with respect to meeting waste effluent limits from their plant at South Park. Research of the records, to be discussed later, indicates that the problem existed as far back as 1971. Since 1971 considerable time and effort has been put forward by the department in an attempt to get Ace Galvanizing to comply with pollution control regulations. To date, no success has been obtained however.

Based upon the information presented herein, it is recommended that: a \$3,000 penalty for violations of RCW 90.48.080, RCW 90.48.180, NPDES Permit #WA-002225-0, and DOE Docket #DE 76-286; and a compliance schedule to cease the discharge be imposed against Ace Galvanizing, Inc. See attachment for suggested compliance schedule.

SUMMARY OF INCIDENT

The best way to summarize the incidents in the Ace Galvanizing case is with a literature search of the file indicating actions taken by this department and associated actions of Ace Galvanizing.

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<u>DATE</u>	<u>INCIDENT</u>
1-13-71	Inhouse memorandum discussing the amount of zinc being discharged by Ace Galvanizing. Concentrations range from 50 to 844 unfiltered zinc and 9 to 880 filtered zinc, mg/l.
2-19-71	Letter from Stewart Messman to Northwest Galvanizing Company (Ace's predecessor). Subject of the letter was the discussion of a recent sampling trip and contaminated storm water and discharge water from property. It also indicated that a temporary waste discharge permit will be issued which would establish a time schedule for improving industrial waste discharge to comply with water pollution control laws.
12-28-71	Issuance of State Waste Discharge Permit #T-3954. This discharge permit among other things, called for compliance by October 1, 1972 of discharge effluent zinc to be less than .1 parts/million zinc and a pH of not less than 6.5.
1-16-73	Results from heavy metal analysis from Ace Galvanizing, Inc. conducted December 19, 1972. Zinc concentrations at Ace, unfiltered, were 76 parts/million.
2-15-73	Results of a sample taken on 2-9-73 indicate zinc unfiltered, 400 parts/million, pH of 6.
2-22-73	Memorandum from Ron Devitt to Bill Burwell. Subject: survey of Ace Galvanizing. This is the summary of the memorandum. 1. Effluent characteristics - the effluent from Ace Galvanizing contained excessive amount of zinc. The minimum concentration of zinc, from three samples collected from the direct discharge to the storm sewer, was 21 parts/million. Maximum limits were set at .1 parts/million in the waste discharge permit. Concentration of cyanide was significant and should be included in the new permit. The effluents are entering the state waters as evidenced by dye tracing.....the data indicates the concentration of zinc have reduced as compared with previous surveys; however, gross concentrations are still being discharged.
4-17-73	Memorandum to the files. Subject: meeting with Ace Galvanizing. The subject meeting concerned meeting with Dave Breiwick, President of Ace at the subject localtion. "As usual, he appeared to have little knowledge of control technology and of any existing problems, in addition, he complained of financial problems. The operations basically was as six months ago."

<u>DATE</u>	<u>INCIDENT</u>
9-23-74	From H.W. Burwell to the files. Subject: staff evaluation for an NPDES permit application. Following are the recommendations: 1. An NPDES permit be issued that limits the concentration of zinc, cyanide and oils with a time schedule to limit the discharge of pollutants. 2. The applicant and other polluting industries be ordered to form a new LID and to construct a sanitary sewer collection system.
6-3-75	Issuance of NPDES Permit #WA-002225-0, expiration date, 6-30-77. This permit incorporated <u>interim</u> heavy metals limit concentrations for discharge on a daily average of .3 parts/million and a .5 parts/million, daily maximum and a pH to be in the range 6.5-8.5. Additionally, at December 31, 1976, it incorporated <u>final</u> effluent and monitoring requirements and heavy metals would be no increase from that of municipality supply.
7-5-74	Sample results: zinc concentration, 1.9, soluble and pH of 6.3.
7-9-74	Sampling. Zinc concentration 134 mg/l.
11-4-75	Letter from President Dave Breiwick of Ace to Mr. McCann, DOE, with respect to subject NPDES permit and reporting procedures. He states, "the status of our discharge is that the only water (discharge) leaving our premises is rainwater or cleanwater used exclusively to cool our air compressors. The galvanizing plant is operating on a completely closed system."
11-16-75	Letter from Tom McCann, DOE, to Dave Breiwick, Ace, stating that considerable quantities of zinc are still being discharged into the tributary ditch of the Duwamish River. Also, included in that letter is a recommendation that Rainier Vista Sewer District should be contacted and hookup from Ace be in accordance.
12-5-75	Response from Mr. Breiwick to Mr. McCann's letter of November 26, 1975 in which he indicates he was having problems with his quench tank. At such, he has closed the loop and he again, as he stated earlier, "there is no effluent from galvanizing operation going into the river." He also indicates that he does not feel connection to the sewers would be advantageous to solving the problem.
6-14-76	Sample results. Zinc, 220 parts/million.

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<u>DATE</u>	<u>INCIDENT</u>
6-13-76	Discharge monitoring on Ace. 220 parts/million. pH: 6.6.
6-25-76	Letter from Mark Premo to Dave Breiwick, indicating that samples were taken on June 14 and June 18, 1976, recording violations of the subject waste discharge permit, zinc totaling an excess of 220 parts/million. I asked him to contact us within 15 days to explain the results of his problems.
6-30-76	Monitoring report. Zinc concentration of 1,200 parts/million, both acidified and unfiltered acidified, the same.
7-9-76	Sampling report on zinc, 150 parts/million, both acidified and filtered acidified.
7-15-76	Telecon: Mark Premo to Mike Bucklin (Ace Galvanizing). Mr. Bucklin indicated to myself at that time, that the drainage was completely closed and should have no discharge.
7-15-76	Monitoring report. Ace Galvanizing, 290 parts/million acidified and 280 parts/million filtered and then acidified.
7-19-76	Monitoring results. Filtered and acidified, a pH 4.4, zinc concentration filtered-acidified, 90 mg/l acidified, 90 mg/l.
8-3-76	Sampling report. pH 3.6. zinc filtered acidified, 220 mg/l, unfiltered acidified, 225 mg/l.
8-5-76	Letter from Mark Premo to Dave Breiwick, Ace Galvanizing, second notice of violation of NPDES permit asking, in which we asked Mr. Breiwick to explain the discharges and asked for his efforts to solve the problems.
8-5-76	Recommendation for Enforcement Action by the NWRO of DOE requests \$1,000 civil penalty and compliance within 15 days of limits as stated in the NPDES permit.
8-11-76	Monitoring results: pH 2.7 zinc acidified 70 mg/l; filtered and acidified, 70 mg/l.
8-20-76	Letter from Water Service Corporation to Ace Galvanizing discussing current problems and suggested alternatives.

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<u>DATE</u>	<u>INCIDENT</u>
8-24-76	Effluent monitoring reports from Ace Galvanizing, pH 4.0; zinc, filtered and acidified, 15 mg/l, unacidified, 15 mg/l.
8-31-76	Order Docket #DE 76-286 ordering Ace Galvanizing within 15 days after receiving this order to comply with conditions set forth in the NPDES Permit #WA-002225-0.
8-31-76	Notice of Penalty incurred and Docket #DE 76-287. Fine was reduced by Olympia to \$250.
8-7-76	Monitoring reports from Ace. pH 3.8, zinc, filtered acidified, 83; unfiltered-acidified 83, both in mg/l.
9-14-76	Letter from Dave Breiwick, Present of Ace Galvanizing, to DOE. The letter was with respect to Order #DE 76-286. The essence of the letter was asking for a time extension "we fully intend to completely correct any discharge problems we now have, however, we will need more time than the Order allows."
9-10-76	Sampling at Ace Galvanizing. pH, 3.1; zinc, 19 filtered acidified;
9-13-76	Sampling of Ace: pH 5.8, filtered, 3.7 mg/l, unfiltered 4.0 mg/l of zinc.
9-22-76	Sampling of Ace: pH 3.1, zinc: filtered acidified, 50; unfiltered acidified, 50 both in mg/l.
9-29-76	Sampling of Ace: pH 3.4, zinc: 42 filtered acidified, 42 unfiltered-acidified, both in mg/l.
10-12-76	Sampling of Ace. pH 11.6, zinc: 3.7 filtered acidified, non-filtered acidified 17 mg/l. It was also indicated that at this time, the flow was very low, about 10 to 15% of normal.
10-22-76	Sampling of Ace. pH 3.9, zinc: filtered acidified 13 mg/l; non-filtered acidified 13.75 mg/l.
10-28-76	Letter from Dave Breiwick, Ace Galvanizing to DOE, requesting 120 days extension to completely eliminate all discharges from the galvanizing operation. Mr. Breiwick says, "At this time, all water in the plant will be recirculated within our operation and there will be zero discharge from Ace Galvanizing. All plant drains will be completely capped off."

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<u>DATE</u>	<u>INCIDENT</u>
11-5-76	Sampling of Ace Galvanizing. pH 2.5. zinc, 50 filtered acidified, 50 non-filtered acidified parts/million.
11-19-76	Amendment to Docket #DE 76-286 in which an extension for 120 days was granted to Ace Galvanizing.
12-14-76	Sampling of Ace. pH 4.8. zinc, 125 filtered acidified, 250 un-filtered acidified parts/million.
2-4-77	Letter from Mark Premo to Ace Galvanizing requesting current update of elimination of all discharges from the plant.

About mid-February of last year, conversations with Mr. Breiwick indicated to us that complete compliance had been established with the Order and there was no discharge to the drainage ditch along Southeast 96th. Additionally, Mr. Breiwick's letter of October 28, 1976 intends to backup this. As a result, no further time and effort was spent in trying to determine whether there was a discharge at that point. But earlier this year, we initiated another series of surveys. The following is the result of that survey.

<u>Date</u>	<u>Time (hrs)</u>	<u>Weather Condition</u>	<u>Approximate Flows (mls/min)</u>	<u>pH</u>	<u>Sol. Zn (mg/l)</u>	<u>Acid Sol. Zn (mg/l)</u>
1-13-78	1045	-	750	6.9	56	58
1-16-78	1415	cloudy drizzling	4,000	6.2	52	78
1-24-78	1410	sunny	no flow	-	-	-
1-25-78	1445	cloudy drizzling	2,400	4.8	150	157
1-30-78	1345	sunny	no flow	-	-	-
1-31-78		cloudy drizzling	7,500	6.3	45	48
2-3-78	1030	sunny	200	6.3	45	50
4-4-78	1335	sunny after rain	30,000 *	6.2	35	100

Sol. Zn - Zn concentration in filtered sample.
Acid Sol. Zn - Zn concentration in acidified sample.

* Effluent was definitely warm water as opposed to previous ambient temperature flows. No thermometer was available but the effluent was warm to the touch and steaming as it flowed from the pipe.

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As can be seen since early 1971 until today, Ace Galvanizing has been in violation of either federal water pollution control laws or state water pollution control laws. This includes a Department of Ecology Order, a State of Washington waste discharge permit prior to the NPDES program and an NPDES permit once the NPDES program became viable. But still today the problem exists at Ace Galvanizing of no less of a magnitude then that which existed approximately 7 years ago. Many times over, we have been assured by Mr. Breiwick, President of Ace Galvanizing, that he was not aware of the problem and that all immediate actions would be taken to necessary to resolve the problem. Specifically, in correspondence and telephone conversations with Mr. Breiwick on 11-4-75, 12-5-75, 7-15-76, and 10-28-76.

There really is not too much more than can be said about the incident with respect to the discharge and violations of either permits or orders. A brief review of the chronological order of the files since 1971 as presented above, I feel, speaks for itself; as such, a very strong enforcement position towards Ace Galvanizing should be presented by our department. During the survey just conducted by the department, it became apparent that some of the discharge from Ace Galvanizing was not contaminated stormwater runoff. The last sampling trip on 4-7-78 showed condensate water or hot water being discharged. This leads me to speculate that there is a process water discharge.

Ace Galvanizing has not been contacted as a result of our last monitoring survey, but will be contacted shortly and informed of our findings and also, that enforcement action has been requested as a result of our last round of sampling.

MP:11

SUGGESTED COMPLIANCE SCHEDULE FOR ACE GALVANIZING

1. Submission of a preliminary engineering report to eliminate the contaminated stormwater runoff and all process water within 30 days from the Notice of Violation.
2. Submission of an engineering report, by a licensed engineer, which contains recommendations for the elimination of all discharges from Ace Galvanizing. This engineering report shall be submitted within 60 days after the submission of item #1.
3. Submission of plans and specifications for the recommendations, as outlined in item #2, by a licensed engineer within 30 days after DOE approval of the engineering report.
4. Completion of construction as approved in item #3 within 60 days after the approval of plans and specifications by DOE; and the submission of a certification of the as built drawings. (See attachment for certification.)